Contributed Podium Presentations

COST OF ILLNESS

TPIL1

ANALYSIS OF DIRECT, INDIRECT, AND TOTAL COSTS OF ASTHMA FROM PATIENT SURVEY DATA

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OBJECTIVE: This study estimated the direct, indirect, and total costs of asthma and evaluated the impact of symptom severity, disease control, and the National Asthma Education and Prevention Program treatment guidelines on cost of asthma care using patient survey data.
METHODS: Data were obtained from a 1993 US household survey to determine the costs of asthma (N = 698). Costs were developed by assigning unit costs to reported medical utilization and unpaid resource usage and were reported in 1994 US dollars. A multivariate regression model was developed to determine factors associated with higher asthma costs.
RESULTS: The average annual total cost of asthma care was US$966 per person, ranging from US$47 (controlled symptoms) to US$7030 (uncontrolled symptoms). Costs for uncontrolled patients were due mainly to costs of hospitalization and indirect costs of missed days from work. Based on the reported incidence of asthma in the United States, the cost of asthma care is estimated at US$9.6 billion. Significant predictors of higher direct, indirect, and total costs of asthma include symptom severity ($p < 0.001$) and following pharmacotherapy guidelines ($p < 0.01$). Younger age is associated with higher costs in the indirect and total cost models ($p < 0.01$ and $p < 0.05$). Smoking is associated with higher indirect costs ($p < 0.05$). Lower total and direct costs are associated with patients who self-pay for healthcare ($p < 0.05$). Lower indirect costs are associated with patients who report their asthma is controlled ($p < 0.05$).
CONCLUSION: Symptom severity is associated with higher asthma care costs. Our findings suggest that either people not meeting guidelines also have zero medical expenses or adherence to the treatment guidelines actually increases costs. A prospective study is necessary to determine the impact of guidelines.

TPIL2

THE COST OF TREATING PARKINSON'S DISEASE (PD) IN THE CALIFORNIA MEDICAID (MEDI-CAL) PROGRAM

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OBJECTIVE: A critical factor used by healthcare organizations in evaluating new medications is baseline data on current costs of treating the disease in question. This study investigated the healthcare use and cost patterns for PD patients in the Medi-Cal program.
METHODS: The data for the analysis were derived from the paid claims data of Medi-Cal program from January 1987 to July 1996. Up to 4 years of episodic anti-PD drug use patterns and associated direct healthcare costs were abstracted for each patient. Descriptive statistics and multivariate OLS models were employed in the study.
RESULTS: Although a significant proportion of PD patients did not use any anti-PD regimen during the first year (23.4% of institutionalized patients, 17.5% of community-based patients), anti-PD drug use was negatively correlated with total first-year healthcare costs (yet not significant) in both groups. Significant association was found between prior hospitalization and healthcare costs ($P < 0.0001$). No statistically significant differences were found across alternative anti-PD medications when used as initial therapy for both community-based and institutionalized patients. Healthcare expenditures of community-based patients increased from approximately $11,000 per patient for the first treatment year to over $27,000 per patient-year by the end of 4 years. Annual costs for institutionalized patients in the first year exceeded $85,000 per patient-year and decreased slightly over 4 years. Compliance rate in community-based PD patients was significantly lower than that of institutionalized patients (25% versus 57%, $p < 0.001$).
CONCLUSIONS: Anti-PD drug therapy might have potential cost saving effect on first-year healthcare services. Prior use of hospital service was a significant predictor of overall direct healthcare costs of PD patients in the Medi-Cal program.

TPIL3

THE MEDICAL COST OF OSTEOARTHRITIS AND RHEUMATOID ARTHRITIS: METHODS AND EVIDENCE

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OBJECTIVE: To evaluate the impact of controlling and not controlling for comorbid conditions on the estimated cost of osteoarthritis (OA) and rheumatoid arthritis (RA) in a managed care setting.
METHODS: Medical claims data from 1996 were obtained for inpatient, outpatient and pharmacy services for members in five United Health–affiliated health plans (enrollment: 884,000). Total costs for arthritis patients ($>$ 1 claims with an arthritis diagnosis and $\geq$ 30 days of continuous enrollment) were compared to costs among an equal number of comparison members who were selected at random after stratification by health plan, gender, age category, and Medicare status. Multivariate regression analysis was used to compare the natural log of costs between the two groups under three alternative